KEL®

Preliminary Data Sheet

# General Purpose Rectifiers
## Standard Recovery Plastic Silicon Rectifiers


### Specification Features:

Case: Epoxy, Molded

Weight: 0.4 gram (approximately)

Finish: All External Surfaces Corrosion Resistant And Terminal Leads Are Readily Solderable

Lead And Mounting Surface Temperature For Soldering Purposed:

260℃ Max. For 10 Seconds 1.16 Inch From Case

RoHS Compliant or Halogen Free Option

Low Reverse Leakage, High Forward Surge Capability

Cathode Indicated By Polarity Band

**DEVICE MARKING DIAGRAM**


| | RoHS | Halogen Free |
|---|---|---|
| Device | 1N400X | 1N400XHF |
| Marking | 1N400X<br>KEL | 400XHF<br>KEL |

**1N400X = Device Part Number**
**x = 1 , 2 , 3 , 4 , 5 , 6 or 7**

### Absolute Maximum Ratings

$T_A$ = 25°C unless otherwise noted

| Parameter | Symbol | 1N4001 | 1N4002 | 1N4003 | 1N4004 | 1N4005 | 1N4006 | 1N4007 | Units |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum DC Blocking Voltage | $V_R$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectifier Current. (0.375" Lead Length @ $T_A$=75℃) | $I_{F(AV)}$ | 1.0 | | | | | | | A |
| Non-repetitive Peak Forward Surge Current. (8.3mS Single Half Sine-wave) | $I_{FSM}$ | 30 | | | | | | | A |
| Operating Junction and Storage Temperature Range | $T_J$, $T_{STG}$ | -65 to +175 | | | | | | | °C |
| Thermal Resistance (Junction to Ambient) | $R_{\theta JA}$ | 65 | | | | | | | °C/W |

### Electrical Characteristics

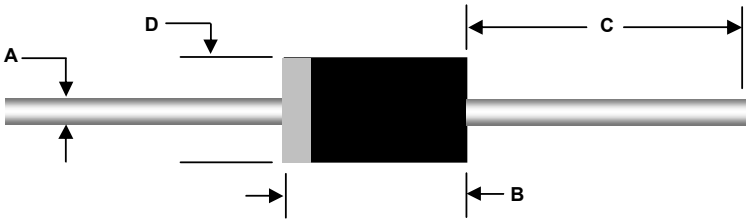
$T_A$ = 25°C unless otherwise noted

| Parameter | Symbol | 1N4001 | 1N4002 | 1N4003 | 1N4004 | 1N4005 | 1N4006 | 1N4007 | Units |
|---|---|---|---|---|---|---|---|---|---|
| Reverse Current @$V_R$ | $I_R$ | 5 | | | | | | | uA |
| Forward Voltage @1A | $V_F$ | 1.1 | | | | | | | V |
| Total Capacitance @VR=4V, f=1MHz | $C_T$ | 15 | | | | | | | pF |

## Package Outline

| Package | Case Outline |
|---|---|

DO-41




| DIM | DO-41 | | | |
|---|---|---|---|---|
| | Millimeters | | Inches | |
| | Min | Max | Min | Max |
| A | 0.70 | 0.86 | 0.028 | 0.034 |
| B | 4.20 | 5.20 | 0.166 | 0.205 |
| C | 25.40 | --- | 1.000 | --- |
| D | 2.00 | 2.70 | 0.080 | 0.107 |

# NOTICE

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